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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,473	07/20/2001	Michael F. McGrath	11916.0049.NPUS00	1751

7590 06/18/2004
Howrey Simon Arnold & White
750 Bering Drive
Houston, TX 77057-2198

EXAMINER

WAX, ROBERT A

ART UNIT	PAPER NUMBER
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1653

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/910,473	Applicant(s) MCGRATH ET AL.	
	Examiner Robert A. Wax	Art Unit 1653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14, 15, 17 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14, 15, 17 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1653

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-9, 14, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. (Reference C25 on the IDS filed October 29, 2002) in view of Collier et al. (Ref. C5 on the same IDS).

Kumar et al. teach a method of increasing milk production in buffaloes by administration of 0.1 mg/kg estradiol-17 β (page 665, left column, lines 11-21) and 0.1 mg/kg of progesterone (page 665, left column, lines 24-26) subcutaneously and 500 mg of BST (page 665, left column, line 26). At page 670, right column, lines 24-29, they disclose that Collier et al. (1993) infused BST daily for 10 days in half the udder of pregnant beef cows and that this produced significant increase in mammary weight, dry weight, DNA and dry fat free weight. At page 665, left column, lines 30-38 and right column, lines 1-5, they teach that udder massages were given at least twice daily and the buffaloes were also milked twice daily starting on day seven for at least seven consecutive days.

Collier et al. (Ref. C5) teach induction of lactation of heifers and reproductive culls by administration of 17 β -estradiol and progesterone for 7 days followed by dexamethasone on days 18 to 20.

Art Unit: 1653

It would have been obvious to one of ordinary skill in the art at the time the invention was made to induce lactation in bovine heifers and reproductive culls according to the teachings of Kumar et al. by concurrent administration of 17 β -estradiol and progesterone and bovine somatotropin, continuing the administration of somatotropin for an extended period with the reasonable expectation of success. Such expectation is raised by the disclosure that Collier et al. administered somatotropin for 10 days and noticed a significant effect. The references do not teach administration of somatotropin for 20 days or more but since a significant effect was seen in only 10 days, one of ordinary skill in the art would expect further administration of somatotropin to result in even more significant results. The precise ranges of dosages are not taught by the prior art but one of ordinary skill in the art could determine the correct dosages using only routine experimentation, given the guidance by Kumar et al. and other references.

3. Claims 10, 11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kumar et al. (Reference C25 on the IDS filed October 29, 2002) in view of Collier et al. (Ref. C5 on the same IDS) as applied to claims 1-9, 14, 15 and 17 above, and further in view of Miller et al. (J. Dairy Science 81 (Suppl. 1): p. 235 (1998)).

The teachings of Kumar et al. and Collier et al. are outlined above.

Miller et al. teach a method of inducing milk production in cows comprising administration of BST and subjecting cows to milk-stimulating photoperiods (lines 1-2)

Art Unit: 1653

wherein said photoperiods comprise approximately 12 hours of light and 12 hours of dark during each 24 hour period (ambient, line 7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to subject cows to the milk-stimulating photoperiods of Miller et al. while performing the method of Kumar et al. as modified by Collier et al. in order to obtain the benefits taught by Miller et al. By way of comment only, Examiner fails to see how exposing the cows to ambient light conditions would be avoidable except by shutting the cows up in a barn. The equinox is defined as either of the two times each year (as about March 21 and September 23) when the sun crosses the equator and day and night are everywhere of equal length (12 hours light and 12 hours dark), according to the Merriam-Webster Online Dictionary. Thus, at any other time of the year the photoperiods naturally either comprise progressively longer periods of light or progressively shorter periods of light.

Response to Arguments

4. Applicant's arguments, filed April 1, 2004, have been fully considered and are persuasive. Therefore, the previous rejections have been withdrawn. However, upon further consideration, new ground(s) of rejection are made above.

Art Unit: 1653

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

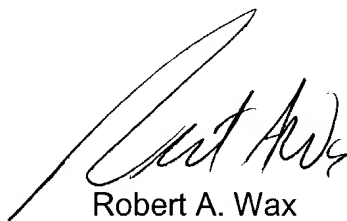
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Wax whose telephone number is (571) 272-0623. The examiner can normally be reached on Monday through Friday, between 9:00 AM and 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. F. Low can be reached on (571) 272-0951. The fax phone

Art Unit: 1653

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert A. Wax
Primary Examiner
Art Unit 1653